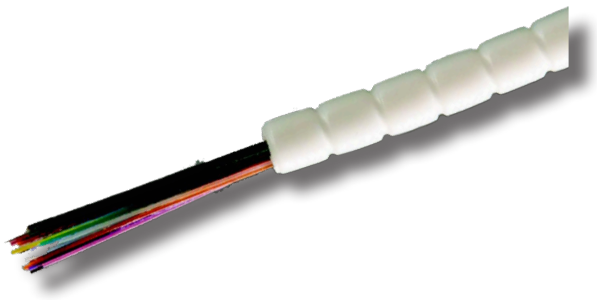
Miniflex® Plenum Cable

A BELDEN BRAND

Features & Benefits

- Tough
- Lightweight – 11.5 kg/km (7.9 lbs/kft)
- Compact – small diameter of 4 mm
- Flexible – grooving allows tough polymer to be flexible
- Anti-kink property
- High crush resistance – up to 750N
- Small bend radius – down to 10 mm
- Easier handling, 2 km (6,500 ft) reels weigh less than 28 kg (60 lbs)
- Excellent mix of mechanical and fire rating properties
- Exceptional low smoke as observed under NFPA 262



Compatibility

- All normal fiber termination methods (e.g. SC/LC/MTP/E2000)
- Cable push-fit connectors
- Electrical cable style installation – staples or cable clips

Overview

The Indoor Plenum fiber cable is available with 1 to 24 fibers with an industry standard 250 micron singlemode and multimode. The tough, yet flexible Miniflex® Plenum cable can be easily routed in tight areas. The compact and lightweight properties are suitable for routing in trays and racks, and the cable's anti-kink properties make handling the optical fiber much safer. It's available terminated or unterminated. The cable also provides protection in areas where optical fiber is exposed to human contact. Miniflex picks up where your armored cable ends and continues to provide to end-to-end optical fiber protection.

Applications

- FTTH/FTTX - Indoor
- Data Infrastructure
- Telecoms

Technical Data

Mechanical Performance Specifications

Crush *IEC 60794-1-21 E3A*			Tensile *IEC 60794-1-21 E1*		Impact *IEC 60794-1-21 E*		Min. Bend Radius *IEC 60794-1-21 E11A*		Kink *IEC 60794-1-21 E10*
Recoverable Jacket	*<0.05 dB attenuation*	*Loss of Signal*	*Operational*	*Installation*	*Recoverable Jacket*	*<0.05 dB attenuation*	*Operational*	*Installation*	*Min. Diameter*
N	*N/cm*	*N*	*N*	*N*	*N/m*	*N/m*	*mm*	*mm*	*mm*
290	750/10	2000	100	100	1	>3	10	15	>32

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Transmission Performance Specification

Item	Single-mode	Single-mode 900µm	Multi-mode
Specification	**G657 A1**	**G657 A2**	**OM3**
Attenuation (850 / 1300 nm)	n/a	n/a	3.5/1.5 dB/km
Attenuation (1310 / 1550 nm)	0.4/0.3 dB/km	0.4/0.3 dB/km	n/a
Attenuation at 1383 nm	≤ 0.32 dB/km	n/a	n/a
Attenuation at 1625 nm	< 0.24 dB/km	< 0.24 dB/km	n/a
Refractive Index at 1310nm, 1550nm	1.467, 1.468	1.467, 1.468	n/a
Refractive Index at 850nm, 1300nm	n/a	n/a	1.482, 1.477
Proof test	0.69 GPa (100 kpsi), 1% min.	0.69 GPa (100 kpsi), 1% min.	0.69 GPa (100 kpsi), 1% min.
Cladding diameter	125 ± 0.7µm	125 ± 0.7 µm	125 ± 1.0µm
Coated diameter	235µm to 245µm	235µm to 245µm	237µm to 247µm
Core/Cladding concentricity error	≤ 0.5µm	≤ 0.5 µm	≤ 1.0µm
Coating concentricity error	≤ 12µm	≤ 12µm	≤ 6µm
Macro bend loss	(1550 nm)	(1550 nm)	(850 and 1300 nm)
10 turns at 50mm diameter	≤ 0.01 dB	n/a	≤ 0.2 dB
10 turns at 15 mm diameter	≤ 0.2 dB	≤ 0.03 dB	n/a
1 turn at 10mm diameter	≤ 0.2 dB	≤ 0.10 dB	n/a
1 turn at 7.5mm diameter	n/a	≤ 0.50 dB	n/a
Temp. range (operation) -60°C to +85°C	max attenuation change ≤ 0.05 dB/km		max attenuation change ≤ 0.1 dB/km
Coating Strip Force	1.3 to 8.9 N		1.3 to 8.9 N

Cable Specifications

Fiber Count	O.D.	Nominal Weight	Service Temp	Install Temp
(250 µm)	*mm (in)*	*kg/km (lb/kft)*	*˚C (˚F)*	*˚C (˚F)*
1*, 2, 4, 8, 12, 18, 24	4.0 (.16)	11.5 (7.9)	-40 to 70 (-40 to 158)	-40 to 70 (-40 to 158)

*also available in 900*µm*

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Ordering Information: Code Builder

Example	TNCA	-		-	4.0-24-PVDF	-	WHT	-	1000	G657A1
Character	1		2		3		4		5	6

1. Product Type
TNCA = Fiber Cable

2. Option
A = Aramid

3. Unique Product Code
4.0-01-PVDF = 1 fiber
4.0-02-PVDF = 2 fibers
4.0-04-PVDF = 4 fibers
4.0-08-PVDF = 8 fibers
4.0-12-PVDF = 12 fibers
4.0-18-PVDF = 18 fibers
4.0-24-PVDF = 24 fibers

4. Color
WHT = White
(check availability)

5. Length
1000 = 1000 ft / 305 m
6500 = 6500 ft / 2 km

6. Fiber Type
G657A1
G657A2
OM3
OM4

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